

Date: Wed, 28 Jul 93 04:30:17 PDT  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #911  
To: Info-Hams

Info-Hams Digest                      Wed, 28 Jul 93                      Volume 93 : Issue    911

Today's Topics:

                    ARRL Internet connection  
                    ftp address wanted  
                    How many people actually use paddles ?  
How to find the answers to frequently-asked questions about Ham Radio  
                    ITM742A?  
                    mod 4 kenwood 440s hf rig wanted  
                    NEED INFO  
                    S meters and modern technology  
                    TS50 Illegal!

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Wed, 28 Jul 1993 07:51:06 GMT  
From: news.cerf.net!kaiwan.com!wetware!khijol!erc@network.ucsd.edu  
Subject: ARRL Internet connection  
To: info-hams@ucsd.edu

Glenn D. O'Donnell (gdo@aloft.att.com) wrote:

: I, for one, applaud the ARRL for connecting to the Internet. I find it to be  
: an extremely useful forum for communicating with them. The folks from the  
: ARRL are also active participants in the discussions on "the net" as they  
: should be.

: I don't always agree with the ARRL positions (God, that would be boring :-)),  
: but let's cut 'em a break. Being a voice that speaks for the majority of the

: amateur masses, the ARRL deserves to have a reliable Internet connection.  
: After all, isn't one purpose of the Amateur Radio Service to promote technical  
: innovation? This IS the 1990's and the ARRL belongs here.

Totally agree! The ARRL belongs on the forefront of innovation. To quote  
from CFR 97.1(b):

Continuation and extension of the amateur's proven ability to contribute to  
the advancement of the radio art.

If getting on the Internet, pushing packet, AMTOR, spread spectrum, etc.  
aren't contributing "to the advancement of the radio art", I don't know  
what is.

--

Ed Carp, N7EKG                      erc@apple.com                      510/659-9560

If you want magic, let go of your armor. Magic is so much stronger than  
steel!                      -- Richard Bach, "The Bridge Across Forever"

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Date: 28 Jul 93 00:47:36 EST  
From: elroy.jpl.nasa.gov!usc!howland.reston.ans.net!news.ans.net!malgudi.oar.net!  
uoft02.utoledo.edu!aschlie@ames.arpa  
Subject: ftp address wanted  
To: info-hams@ucsd.edu

Could a kind sole post the faq that has the official ftp address for this  
newsgroup? Or could someone mail it to me?? I want the one that has the mods,  
text files, and other useful info about various amateur radio topics.

Thanks/73's

Tony N8XJA

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Date: Wed, 28 Jul 1993 04:42:48 GMT  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!spool.mu.edu!olivea!korie!lll-  
winken.llnl.gov!taurus.cs.nps.navy.mil!rovero@network.ucsd.edu  
Subject: How many people actually use paddles ?  
To: info-hams@ucsd.edu

I use paddles all the time, and so do most of the other CW ops  
I know. It is easier to send with a paddle, especially at higher  
speeds. 25 years ago I started with straight keys and still

remember the degradation in fist quality as the night wore on....

--

Josh Rovero (rovero@oc.nps.navy.mil) | Packet: KK1D @ K6LY  
Department of Oceanography, Code OC/Rv |  
Naval Postgraduate School |  
Monterey, CA 93943 (408) 656-2084 |

-----  
Date: 28 Jul 93 09:44:06 GMT  
From: rtech!amdahl!amdahl!uts.amdahl.com@decwrl.dec.com  
Subject: How to find the answers to frequently-asked questions about Ham Radio  
To: info-hams@ucsd.edu

Posted-By: auto-faq 2.4  
Archive-name: ham-faq-ptr

How to find the Rec.radio.amateur.misc Frequently Asked Questions list  
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This article will tell you how to find the answers to frequently-asked Questions (FAQ) from rec.radio.amateur.misc. The FAQ articles are posted on the 7th of each month. This article is posted on the 14th, 21st, and 28th of every month as a reminder of where to find the FAQ.

The FAQ articles are intended to summarize some common questions on the rec.radio.amateur.misc newsgroup and Info-Hams mail list as well as to help beginners get started.

Besides the monthly posting, the FAQ is always available via anonymous FTP and from e-mail servers. This article contains instructions for obtaining a copy of the FAQ. It also contains the table of contents from the FAQ so that you know which questions are covered by it.

Please provide a copy of the FAQ to any new or soon-to-be Hams you know.

Regular FAQ postings can help save network bandwidth and maintain a good signal-to-noise ratio in the newsgroup. However, they can't do it alone - you, the reader, have to use them. If you are a new user, please print and review the FAQ articles and look at the instructions in the news.newusers newsgroup before posting any articles. If you are an experienced user, please help by refraining from answering frequently-asked questions on the newsgroup if they are already answered by the FAQ articles. Instead, send e-mail to the user who asked the question. (It will be helpful if you include the part of the FAQ that answers their question, but not the whole thing.)

--How to obtain a current copy of the FAQ-----

There are 3 ways to obtain a copy of the FAQ.

- 1) NetNews
- 2) Anonymous FTP
- 3) An Electronic Mail Server

#### Option #1: NetNews

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If you are familiar enough with NetNews to look through previous articles on your system, Option #1 above may be the easiest for you. The FAQ is posted so that it should not expire from your site's news spool until the next one is posted. Unfortunately, some news administrators do not honor the expiration dates meant to preserve the FAQ.

Look in rec.radio.amateur.misc, rec.radio.info, rec.answers, or news.answers. If the FAQ has expired at your site, try Option #2 (and ask your news administrator to honor expiration dates for articles cross-posted to news.answers if he/she can.)

#### Option #2: Anonymous FTP

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Anonymous FTP uses the File Transfer Protocol. It is only available to sites which are directly connected to the Internet. If you don't know how to use FTP and can't find a friend to help you, continue to Option #3. If your site is not connected to the Internet, you should also continue to Option #3.

The following sites have copies of the FAQ:

site name & address    path to FAQ articles

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|                    |  |
|--------------------|--|
| ftp.amdahl.com     | pub/radio/amateur/faq.[1-3].Z<br>located in western USA, FAQ updated daily   |
| ftp.cs.buffalo.edu | pub/ham-radio/faq_ham_[1-3]<br>located in eastern USA, FAQ updated monthly   |
| rtfm.mit.edu       | pub/usenet/news.answers/radio/ham-radio/faq/part*<br>located in eastern USA, FAQ updated monthly   |
|                    | contains news.answers archive - most UseNet FAQs are here  |
| grivel.une.edu.au  | pub/ham-radio/buffalo/ham-radio/faq_ham_[1-3]<br>located in Australia, FAQ updated monthly<br>(Ham files mirrored from buffalo/funet/ucsd daily) |
| nic.funet.fi       | pub/ham/info/faq_ham_[1-3]<br>located in Finland, FAQ updated monthly  |

Remember, when connecting to the remote system, use the login name of "anonymous" and, as a courtesy to the site administrators, your e-mail address for the password.

#### Option #3: Electronic Mail Server

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If you can't use Options 1 or 2, your only remaining option is electronic mail. You can retrieve a copy of the FAQ by sending a message to  
mail-server@rtfm.mit.edu

The body of your mail will contain a command for the mail server software. To get all of the FAQ (consisting of 70K of e-mail in 3 parts), place the following in the first line of your message:  
send usenet/news.answers/radio/ham-radio/faq/★

Leave out the subject of your message because the mail server will ignore it.

--- begin sample mail message ---

To: mail-server@rtfm.mit.edu

From: me@here.org

Date: Mon Aug 14 22:27:33 PDT 1995

send usenet/news.answers/radio/ham-radio/faq/★

--- end sample mail message ---

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## Table of Contents

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Dates indicate last modification.

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- \*\* I am looking for a specific ham, can anyone help me find him? (6/93)
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- \*\* What is the best way to learn Morse Code? (10/92)
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- \*\* My apartment or housing complex does not allow outdoor antennas, now what do I do? (6/93)
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- \*\* What do I need to get started in packet radio? (5/92)

\*\* What do I need to get started in satellite communications? (pre-4/92)  
\*\* What is available to get started in ATV, SSTV and WEFAX? (5/92)  
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--Submitting changes for the FAQ-----

If you have comments or updates for the FAQ, send e-mail to  
hamradio-faq@amdahl.com

This will send mail to all the people on the FAQ editorial review group.

-----  
Date: 28 Jul 93 09:10:00 GMT  
From: clarkson!news@uunet.uu.net  
Subject: ITM742A?  
To: info-hams@ucsd.edu

Has anyone played with the new TM742? When the 741 came out we got  
all kinds of info,mods, rx limits, tx limits hidden memories,etc.  
I would like to know how the 742 "stacks up" 73 Tom

--

manfred@cheetah.ece.clarkson.edu  
Thomas W. Manfred (NS2Z) ARRL  
R1 Box382 W Higley Rd. NRA (LIFE)  
Colton, NY 13625 CCA (LIFE)

-----  
Date: 28 Jul 93 00:23:13 EST  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!news.ans.net!  
malgudi.oar.net!uoft02.utoledo.edu!aschlie@network.ucsd.edu  
Subject: mod 4 kenwood 440s hf rig wanted  
To: info-hams@ucsd.edu

I am posting this question for an amateur who had the mod for the following  
radio and lost it. He is trying to get the mod again for his work. (to get  
into what he does would be long and he does not want me to anyway for security  
reasons):

For Kenwood 440s (I think the manufact. is correct but it is a 440s) hf rig.

The mod makes the antenna tuner tracks the frequency on receive without  
transmitting. I am not interested in hearing why such a mod is  
stupid/unneeded. Basically, for the lucky person who can help me out, I can  
reward with any mod in on record that can not be found on any ftp sites.

Granted, I have not checked out the ftp site because I do not know the address

and I am calling long dist and phone call is too long. This guy is in great need and his usual sources are not being helpful.

Thank you!!

Tony N8XJA

-----  
Date: 28 Jul 93 08:18:54 GMT  
From: ogicse!uwm.edu!convex.csd.uwm.edu!erchul@network.ucsd.edu  
Subject: NEED INFO  
To: info-hams@ucsd.edu

A friend of mine and I have just picked-up  
a COURIER FALCON CENTURIAN (CB radio).

The former owner had lost/misplaced/thrown out  
the owners manual.

If anyone has one we would be willing to pay  
postage and/or copying costs etc...

David A. V. Erchul  
CSD - Computer Operations  
University of Wisconsin  
3200 N. Cramer  
Room EB67  
Milwaukee, Wi. 53211

(414) 229-5735  
midnight - 8am

Internet: erchul@convex.csd.uwm.edu  
Bitnet: erchul%convex.csd.uwm.edu@INTERBIT  
uucp: uunet!erchul@convex.csd.uwm.edu

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Date: 28 Jul 1993 12:43:01 +0300  
From: pipex!sunic!news.funet.fi!butler.cc.tut.fi!lehtori.cc.tut.fi!not-for-mail@uunet.uu.net  
Subject: S meters and modern technology  
To: info-hams@ucsd.edu

ODONNELL@MAR65.MAR.ORA.FDA.GOV wrote:

> And this is another reason why the dbuv scale just makes so much good



> sense! It doesn't suffer from this problem of interpretation at all!  
> .1uv (-128dbm) is -20db on this scale, not somewhere between S-whatever  
> and S1!

Why not calibrate directly in dBm or even dBW and you don't have to worry about what impedance is used.

In the 70's there was a lot of fuss about how to measure the sensitivity of a Hi-Fi receiver. Different standards used 50/60/75/240/300 ohms unbalanced or balanced and the voltage varied accordingly. It was decided to measure the input power in femtowatts ( $1\text{E-}15$  W) and express the sensitivity in dBf.

One method to calibrate receiver gain (and the signal meter) is to rapidly switch between the antenna and a known noise source (a 50 ohm resistor at room temperature). The gain is adjusted during the noise period to give a predetermined output and when switched to the antenna, the output is proportional to the well known noise source. This method is used to calibrate radio telescopes.

This assumes that no agc is used, but if you use 95 %/ 5 % noise/signal duty cycle and you keep the switching cycle much shorter than the agc time constant, some useful results could be obtained.

You could calibrate your signal meter in Kelvins or dBK :-)

If you put the noise source and the switch ahead of a mast-head pre-amp, consistent readings could be obtained with or without the preamp in the circuit. This would eliminate the strange habit of some operators to give two signal reports, with and without the pre-amp.

One might even ask why signal reports are given in "absolute" units (dBm, dBuV or even "calibrated" S-units). For communication purposes the interesting thing is signal to noise ratio, not the signal level. A SNR meter could be constructed by adding a bias adjustment (not gain) to a S-meter. The band noise (or receiver noise) is set to S1 and this would give an indication of readability (R-meter ?).

Paul OH3LWR

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Phone : +358-31-133 657  
X.400 : G=Paul S=Keinanen O=Elisa-Tampere A=ELISA C=FI  
Internet: Paul.Keinanen@Telebox.tele.fi  
Telex : 58-100 1825 (ATTN: Keinanen Paul)  
Mail : Hameenpuisto 42 A 26  
SF-33200 TAMPERE  
FINLAND

-----  
Date: 28 Jul 93 05:52:45 GMT  
From: ogicse!emory!wa4mei!ke4zv!gary@network.ucsd.edu  
Subject: TS50 Illegal!  
To: info-hams@ucsd.edu

In article <CAu6wA.I6@srngenprp.sr.hp.com> alanb@sr.hp.com (Alan Bloom) writes:

>Gary Coffman (gary@ke4zv.uucp) wrote:

>: >Gary was confused by the fact that 100% modulating a 40 watt carrier

>: >gives you 20 watts of sidebands, for a total AVERAGE power of 60 watts.

>: >The peak envelope power is, however, 160W.

>

>: Err, ah, I may still be confused, but I think this is wrong too.

>

>[Equations deleted]

>

>: Now PEP is conventionally defined as peak voltage times peak current,

>: and should be expressed in VA, not watts, since the two may not be in

>: phase.

>

>PEP is defined as the power transferred to the load (antenna) at the

>peak of the modulation waveform. It is expressed in watts.

>

>: Whew! I thought this was going to be simple.

>

>It IS simple. Let's say your transmitter is putting out an unmodulated

>carrier of 10V RMS into a 50-ohm resistive load. Power =  $E^2 / R =$

>2 Watts. With 100% modulation, the RF voltage varies between 0V on

>negative modulation peaks, to 20V on positive peaks. So on positive

>peaks, the power is  $20^2 / 50 = 8$  Watts.

>

>100% modulated AM has a 4/1 peak (PEP) to carrier power ratio.

I hate to beat this to death, but I'm still unconvinced. My reference says differently. What's your reference for 4/1 for AM? I note that for AM service the carrier power is constant. Therefore PEP=average for that portion of the power. The \*total\* power in both sidebands is 0.5 that in the carrier, and the two sidebands are of reversed phase so that they don't just add. \_Reference Data for Radio Engineers\_ says the PEP in VA of AM is 2.83 times carrier. I've been using that book for a lot of years, and I believe it's correct.

Gary

--

|                             |  |              |  |                          |
|-----------------------------|--|--------------|--|--------------------------|
| Gary Coffman KE4ZV          |  | You make it, |  | gatech!wa4mei!ke4zv!gary |
| Destructive Testing Systems |  | we break it. |  | uunet!rsiatl!ke4zv!gary  |

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| Lawrenceville, GA 30244 |  |             |  |                        |

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End of Info-Hams Digest V93 #911  
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